

CLAIMS

1. A disposable filtration bag for a floor care appliance, comprising a closed receptacle for collecting dirt particles and having an inlet opening for allowing a dirt laden airstream to enter, said receptacle being formed from a composite sheet comprised of at least one layer of expanded polytetraflouroethylene and at least one substrate layer.

2. The filtration bag of claim 1 wherein said at least one substrate layer is comprised of a material from the group consisting of synthetic fibers and natural fibers.

3. The filtration bag of claim 2 wherein said synthetic fibers is selected from the group consisting of polyester, polyolefin, and nylon.

4. The filtration bag of claim 2 wherein said natural fibers is selected from the group consisting of cellulose and cotton.

5. The filtration bag of claim 1, wherein said closed receptacle further includes:

a front panel portion;

a rear panel portion comprised of a first rear panel portion and a second rear panel portion joined together with a seam;

wherein said front panel portion and said rear panel portion each respectively have a top end and a bottom end and said respective top ends and said bottom ends are sealed together by folding and an adhesive.

6. The filtration bag of claim 5, wherein said closed receptacle further includes a pair of opposing pleated sidewalls joining said front sidewall and said rear sidewall together along the opposing lateral sides.

5 7. The filtration bag of claim 6, wherein said pair of pleated sidewalls each are comprised of at least one pleat.

8. The filtration bag of claim 1, wherein said closed receptacle further includes:

a front panel portion;

10 a rear panel portion comprised of a first rear panel portion and a second rear panel portion joined together with a seam;

wherein said front panel portion and said rear panel portion each respectively have a top end and a bottom end and said respective top ends and said bottom ends are sealed together by a seam.

15 9. The filtration bag of claim 8, wherein the seam sealing said first and second rear panel portions and said seams sealing the respective top ends and said bottom ends of said front and rear panels portions is formed by an adhesive.

20 10. The filtration bag of claim 8, wherein the seam sealing said first and second rear panel portions and said seams sealing the respective top ends and said bottom ends of said front and rear panels portions is formed by sewing.

11. The filtration bag of claim 8, wherein the seam sealing said first and second rear panel portions and said seams sealing the respective top ends and said bottom ends of said front and rear panels portions is formed by thermal bonding.

5 12. The filtration bag of claim 8, wherein said closed receptacle is square in shape.

13. The filtration bag of claim 8, wherein said closed receptacle is rectangular in shape.

14. The filtration bag of claim 1, wherein said closed receptacle further includes:

10 a front panel portion;

a rear panel portion;

wherein said front panel portion and said rear panel portion each have a top and opposing longitudinal edges and said respective top and opposing longitudinal edges are sealed together with a seam.

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15. The filtration bag of claim 14, wherein said closed receptacle is square in shape.

16. The filtration bag of claim 14, wherein said closed receptacle is rectangular in shape.

20 17. The filtration bag of claim 16, wherein the seams sealing said top and opposing longitudinal edges of said front and rear panels are formed by an adhesive.

18. The filtration bag of claim 14, wherein the seams sealing said top and opposing longitudinal edges of said front and rear panels are formed by sewing.

19. The filtration bag of claim 14, wherein the seams sealing said top and opposing longitudinal edges of said front and rear panels are formed by thermal bonding.

20. A method of making a disposable filtration bag for a floor care appliance, comprised of the steps of:

10 providing a sheet of composite material comprised of at least one layer of
expanded polytetrafluoroethylene and at least one substrate layer;
 folding said sheet of composite material;
 sealing together respective edges of a first and second rear panel portion of
said receptacle by a seam;
 sealing together respective top edges and bottom edges of said receptacle by
15 a seam; and
 providing an aperture in a front sidewall of said receptacle wherein a dirt laden
airstream may enter.

21. The method of making a disposable filtration bag for a floor care appliance of claim 20,
20 further including one pleated sidewall separating each of said front and rear panel portions
along opposing longitudinal edges of said front and rear panel portions.

22. The method of making a disposable filtration bag for a floor care appliance of claim 21, wherein said pleated sidewalls include at least one pleat.

23. A method of making a disposable filtration bag for a floor care appliance, comprised of
5 the steps of:

providing a sheet of composite material comprised of at least one layer of expanded polytetraflouroethylene and at least one substrate layer;

folding said sheet of composite material;

sealing together respective edges of a first and second rear panel portion of
10 said receptacle by a seam;

sealing together respective top edges of a front and rear panel portion of said receptacle by a seam; and

providing an aperture in a front sidewall of said receptacle wherein a dirt laden airstream may enter.
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24. A method of making a disposable filtration bag for a floor care appliance, comprised of
the steps of:

providing a sheet of composite material comprised of at least one layer of expanded polytetraflouroethylene and at least one substrate layer;

20 folding said sheet of composite material;

sealing together respective top edges of a front and rear panel portion of said receptacle by a seam;

sealing together respective opposing longitudinal edges of a said front and rear panel portions of said receptacle by a seam; and

providing an aperture in a front sidewall of said receptacle wherein a dirt laden airstream may enter.

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~~25.~~ A vacuum cleaner, comprised of:

a suction nozzle;

a motor-fan assembly; and

a disposable filtration bag formed from a composite sheet comprised of at least

10 one layer of expanded polytetraflouroethylene and at least one substrate layer.

26. A floor care appliance, comprised of:

a suction nozzle;

a motor-fan assembly; and

15 a disposable filtration bag formed from a composite sheet comprised of at least one layer of expanded polytetraflouroethylene and at least one substrate layer.